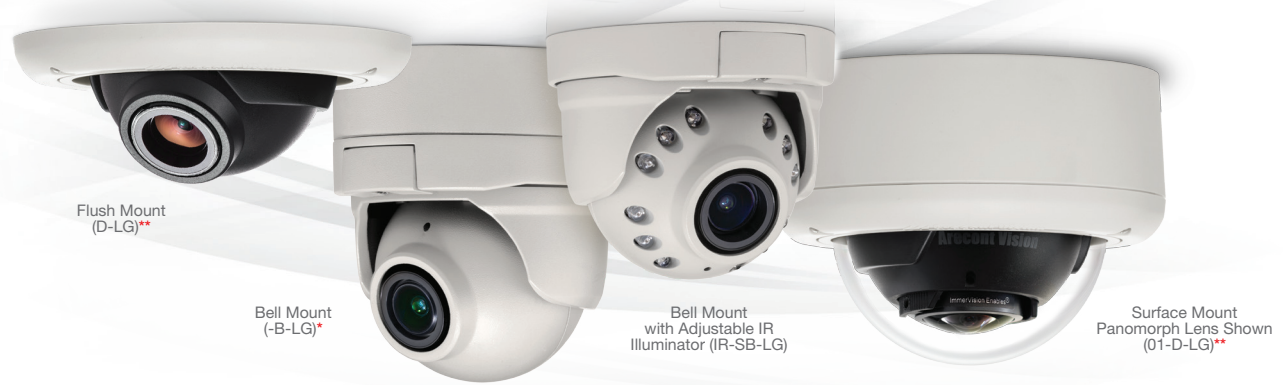


MegaBall® G2 IP Megapixel Cameras

1.2–5MP H.264 All-in-One Motorized P-Iris or Panomorph Lens True Day/Night Indoor IP Adjustable IR Cameras with WDR (Wide Dynamic Range) and STELLAR™ (Spatio Temporal Low Light Architecture) Models



The MegaBall G2 megapixel camera series fuses optimum performance with outstanding aesthetics. These stylish indoor cameras feature a choice of 1.2-, 1080p-, 3-, or 5-megapixel (MP) resolution options. Regardless of time-of-day, this camera is ideal for applications with challenging lighting conditions. The series combines a day/night mechanical IR cut filter with an integrated P-iris lens for precise, optimal image quality. For applications with poor lighting conditions optional wide dynamic range is available on some 1080p and 3MP models.

For low-light color images without IR, the 1.2MP STELLAR, “Spatio Temporal Low Light Architecture” model offers best-in-class light sensitivity capturing details in near complete darkness. For additional low light capabilities Binning Mode is available on 3MP and 5MP camera models.

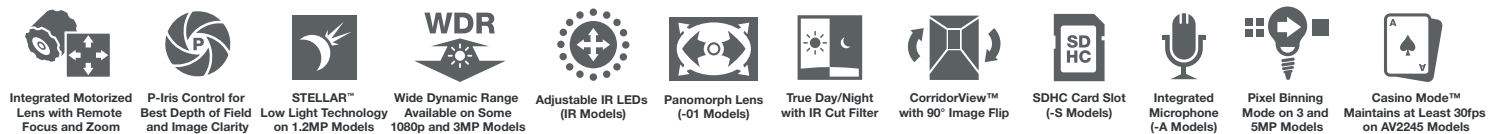
MegaBall G2 IR models are integrated with an Adjustable Infrared Illuminator, providing clear images in extreme, low-light scenes. Infrared camera models offer the ability to manually adjust the IR's level of intensity, providing the flexibility to ensure the scene is illuminated uniformly. For applications that

require the camera to be mounted in close proximity to the target, an optional manual lens with an ImmerVision Enables® panomorph system offers 180° and 360° views (5MP models).

The camera offers advanced streaming capabilities and is designed on an efficient H.264 encoding platform capable of delivering high quality video without straining the network.

The SD card slot supports up to 32GB of storage capacity for convenient onboard storage. The camera's power can be supplied via a Power-over-Ethernet compliant network cable connection or with power from a 12-48V DC/24V AC power supply.

The camera's interface allows for an intuitive, fast, and easy configuration; while the Free AV IP Utility tool allows users to quickly configure multiple cameras at one time. The MegaBall G2 is ONVIF Profile S (Open Network Video Interface Forum) and PSIA (Physical Security Interoperability Alliance) compliant, providing interoperability between network video products regardless of manufacturer.



Series Features

- Choice of resolution (1.2-, 1080p-, 3-, or 5MP options)
- Remote Focus/Zoom
- P-Iris Lens for Best Depth of Field and Image Clarity
- CorridorView™ Allows 90° Image Rotation for Better Coverage in Hallways and Corridors
- True Day/Night Functionality with Mechanical IR Cut Filter
- Tamper-Resistant Housing
- Installer Friendly Cable Management, 3-Axis Adjustment, In-Ceiling and Surface Mount Options
- PoE and Auxiliary Power: 12–48V DC/24V AC
- Dual Encoder H.264/MJPEG
- Privacy Mask, Motion Detection, Flexible Cropping, Bit Rate Control, Multi-Streaming, Forensic Zooming and Non-Integer Scaling

Model Dependent Features

- STELLAR™ (Spatio Temporal Low Light Architecture) on 1.2MP Models
- True WDR up to 100dB at Full Resolution (Some 1080p and 3MP Models)
- Adjustable IR illumination up to 15m (50ft) for scenes with low or no ambient lighting (IR Models)
- Variable illumination ensures that IR light is evenly disbursed (IR Models)
- Integrated Panomorph Solution for 180° and 360° Fields of View (-01 Models)
- Casino Mode™ Continuous 30fps Frame Rate Required by Gaming Industry Regulations (AV2245 Models)
- Binning Mode for Strong Low Light Performance on 3MP and 5MP Resolutions
- Integrated Microphone and Audio Out (-A Models Only)
- SDHC Card Slot for Onboard Storage (-S Models)



Optional Manual ImmerVision Enables® Panomorph Lens (01-D-LG models)



* Junction box sold separately

** Dome models can be configured with or without a dome bubble

Camera Imaging Specifications

Model		AV1245	AV2245		AV2246		AV3245		AV3246		AV5245		
		PMIR	PM	PMIR	PM	PMIR	PM	PMIR	PM	PMIR	PM	PMIR	01-D (Panomorph)
Image Sensor		1.2MP*	2.07MP		2.07MP		3MP		3MP		5MP		
Optical Format		1/3"	1/3"		1/3.2"		1/3"		1/3.2"		1/2.5"		
Pixel Pitch		3.75µm	2.2µm		2.2µm		2.2µm		2.2µm		2.2µm		
Minimum Illumination	Color (Day Mode)	0.02 Lux	0.1 Lux		0.3 Lux		0.1 Lux		0.3 Lux		0.3 Lux		
	Color Binning (Day Mode)	-	-		-		0.05 Lux		0.15 Lux		0.15 Lux		
	B/W (Night Mode)	0.002 Lux, 0 Lux, IR sensitive	0 Lux, IR sensitive		0 Lux, IR sensitive		0 Lux, IR sensitive		0 Lux, IR sensitive		0 Lux, IR sensitive		
Full FOV Resolution		1280 H x 960 V	1920 H x 1080 V		1920 H x 1080 V		2048 H x 1536 V		2048 H x 1536 V		2592 H x 1944 V		
1/4 Resolution		640 H x 480 V	960 H x 540 V		960 H x 540 V		1024 H x 768 V		1024 H x 768 V		1296 H x 972 V		
Scaling		-	Yes		Yes		Yes		Yes		Yes		
Adjustable IR		Yes	-	Yes	-	Yes	-	Yes	-	Yes	-	Yes	-
Dynamic Range		83.5dB	69.5dB		WDR up to 100dB		69.5dB		WDR up to 100dB		70.1dB		
Maximum SNR		54dB	44dB		49dB		44dB		49dB		45dB		
Frame Rates	At Max Resolution	37fps (1280 x 960)	30fps (1920 x 1080)		30fps (1920 x 1080)		21fps (2048 x 1536)		21fps (2048 x 1536)		14fps (2592 x 1944)		
	Cropped	-	42fps (1280 x 1024)		41fps (1280 x 1024)		29fps (1920 x 1080) 41fps (1280 x 1024)		30fps (1920 x 1080) 41fps (1280 x 1024)		21fps (2048 x 1536) 29fps (1920 x 1080) 41fps (1280 x 1024)		
	Binning Mode	-	-		-		46fps (1024 x 768) 64fps (960 x 540)		21fps (1024 x 768) 27fps (800 x 600) 31fps (960 x 540) 32fps (640 x 512)		34fps (1296 x 972) 46fps (1024 x 768) 64fps (960 x 540)		
Lens	Motorized Lens	2.8-8.5mm, F1.2, RZ, RF, P-iris, HFOV=102-34	2.8-8.5mm, F1.2, RZ, RF, P-iris, HFOV=88-30		2.8-8.5mm, F1.2, RZ, RF, P-iris, HFOV=88-30		2.8-8.5mm, F1.2, RZ, RF, P-iris, HFOV=94-32		2.8-8.5mm, F1.2, RZ, RF, P-iris, HFOV=94-32		3.3-8.5mm, F1.2, RZ, RF, P-iris, HFOV=95-41	-	
	Manual Panomorph ImmerVision Enables®	-	-		-		-		-		-	0.98mm (Short Axis) 1.12mm (Long Axis) F2.0, H-FOV = 182° A8TRT Lens	

* STELLAR™ Model

SituationalPlus™

Model	Lens	View Angle	Distance to pixel density (ft.)(m)					
			30ppf-T	30ppf-W	60ppf-T	60ppf-W	90ppf-T	90ppf-W
AV1245PM	2.8-8.5mm	102° – 34°	68' (20.7m)	12' (3.7m)	33' (10.1m)	N/A Less than 1' (0.3m)	20' (6.1m)	N/A Less than 1' (0.3m)
AV2245PM	2.8-8.5mm	88° – 30°	120' (36.6m)	34' (10.4m)	58' (17.7m)	15' (4.6m)	38' (11.6m)	8' (2.4m)
AV2246PM	2.8-8.5mm	88° – 30°	120' (36.6m)	34' (10.4m)	58' (17.7m)	15' (4.6m)	38' (11.6m)	8' (2.4m)
AV3245PM	2.8-8.5mm	94° – 32°	120' (36.6m)	31' (9.4m)	59' (18.0m)	13.5' (4.1m)	39' (11.9m)	7' (2.1m)
AV3246PM	2.8-8.5mm	94° – 32°	120' (36.6m)	31' (9.4m)	59' (18.0m)	13.5' (4.1m)	39' (11.9m)	7' (2.1m)
AV5245PM	3.3-8.5mm	95° – 41°	115' (35.1m)	38' (11.6m)	57' (17.4m)	17.5' (5.3m)	37.5' (11.4m)	10' (3.0m)

Programmability

Optics	Remote focus, remote zoom and P-iris control (PM models)	
	Adjustable IR (IR Models)	Beam angle and LED intensity manually changeable
	Pixel Binning Mode (3MP and 5MP)	
Programmable Shutter Speed	Controls motion blur	
Motion Detection	Real-time, Privacy mask, 1024 detection zones	
Casino Mode™	Maintains 30fps (AV2245 model)	
Flexible Cropping	Resolution windowing down to 1x1 pixel for JPEG and 2x2 pixels for H.264	
Backlight Compensation	Auto multi-matrix white balance	
Flicker Control	50/60Hz selectable	
Image Rotation	180° image flip or CorridorView™ (90°, 180° and 270° image rotation) on -S models	
Scaling	Non-integer scaling down to 128x96 (See Scaling Resolution Chart on page 3)	
Wide Dynamic Range	Auto adjustment between WDR and LDR modes (WDR models)	
Noise Reduction	Low light noise filter control	
Efficiency	Bit rate and bandwidth limitation control	
Sharpness	Selectable enhancement level	
Miscellaneous	Programmable resolution, brightness, saturation, gamma, tint	
Password	16-digit ASCII character password	

Data Transmission

Compression Type	H.264 (MPEG-4, Part 10)/Motion JPEG
	21 levels of quality
Transmission Protocols	RTSP, RTP/TCP, RTP/UDP, HTTP, DHCP, TFTP, IPv4, IPv6, QoS
	100Base-T Ethernet Network Interface
Multi-Streaming	8 non-identical streams

Compliance

Industry Standard	ONVIF Profile S and PSIA Conformant
Listings	UL (CB)
FCC Compliance	47 CFR 15 Class A
Environmental	RoHS, REACH, WEEE
Markings	(CE) EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3, EN60950

Environmental

Operating temperature	-5°C (-23°F) to +50°C (122°F)
Humidity	0% to 90% (non-condensing)
Storage temperature	-20°C (-4°F) to +60°C (140°F)

General Electrical

Alarm Input	General purpose opto-coupled (Except PMIR)
Alarm Output	General purpose opto-coupled (Except 01-DA)*
Power Over Ethernet	PoE 802.3af, Class 3
	Total PoE Solution (No external power requirement)
Auxiliary Power	12–48V DC, 24V AC

* No alarm trigger available via the alarm output.

Max Power Consumption (Watts DC Power)

Model Number	PM	PMIR	01-D (Panomorph)
AV1245	–	8.2 W	–
AV2245 / AV3245	6.7 W	8.1 W	–
AV2246 / AV3246	7.8 W	9.4 W	–
AV5245	7.1 W	8.7 W	5.7 W

IR Illuminator (PMIR Models)

LEDs	12 pcs 850nm Adjustable LEDs with Adjustable IR
Projection Distance	50ft (15m) max
Projection Angle	60° and 80°

Audio Electrical (-A models only)

Streaming	Two-way
Compression	G.711 PCM 8 kHz
Input/Output	Integrated microphone / line output

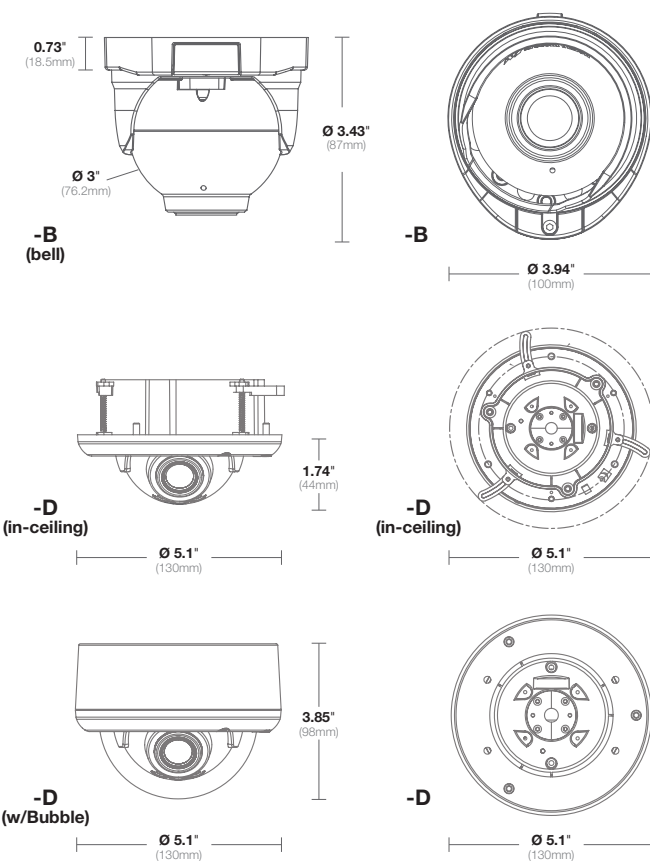
Scaling Resolution Chart

Scaled Resolution	H	V	Pixel Count
720p	1280	720	921600
XVGA	1024	768	786432
DVGA (16:9)	1136	640	727040
DVGA (3:2)	960	640	614400
SVGA	800	600	480000
D1 (PAL)	720	576	414720
4CIF (PAL)	704	576	405504
D1 (NTSC)	720	480	345600
4CIF (NTSC)	704	480	337920
VGA	640	480	307200
2CIF (PAL)	704	288	202752
HVGA (4:3)	480	360	172800
2CIF (NTSC)	704	240	168960
HVGA (8:3)	640	240	153600
HVGA (3:2)	480	320	153600
HVGA (16:9)	480	272	130560
CIF (PAL)	352	288	101376
CIF (NTSC)	352	240	84480
QVGA (SIF)	320	240	76800
QCIF (PAL)	176	144	25344
QCIF (NTSC)	176	120	21120
SQCIF	128	96	12288

Mechanical

Casing	-B	Surface mount with die-cast aluminum housing	
	-D	Plastic surface/in-ceiling dome with acrylic bubble	
Gimbal		Easy 3-axis camera adjustment with 360° pan, 90° tilt and 360° z-axis	
Dimensions <i>(See Dimensions)</i>	-B (bell)	Ø 3.93" (100mm) x 3.24" H (87mm)	
	-D (in-ceiling)	Ø 5.1" (130mm) x 1.74" H (44mm)	
	-D (surface w/ bubble)	Ø 5.1" (130mm) x 3.85" H (98mm)	
Weight		Camera Unit	Packaged
	-B	1.15lbs (0.52kg)	1.65lbs (0.75kg)
	-D	1.15lbs (0.52kg)	1.7lbs (0.77kg)
Dome Color	Light Gray Dome		

Dimensions



Optional Compatible Accessories

-B	AV-EBA	Light gray electrical box adapter
	MB2-JBA	Light gray junction box adapter for MegaBall G2 Bell Mount
-D	AV-SPMJB	Light gray ceiling mount with 1/2" NPT standard
	AV-SWMJB	Light gray wall mount with 1/2" NPT standard

Ordering Information



Model Specific Features

Model	Resolution	Frame Rate	Features		
AV1245	1.2MP	37fps	-	-	STELLAR™
AV2245	1080p	30fps	-	Casino Mode™	-
AV2246	1080p	30fps	WDR	-	-
AV3245	3MP	21fps	-	-	Binning
AV3246	3MP	21fps	WDR	-	Binning
AV5245	5MP	14fps	-	-	Binning

Build-to-Order Options

-A	Audio
-B	Bell Mount
-D	Dome or Recessed Dome Model
-LG	Light Gray Dome
PM	Remote Zoom, Remote Focus, P-iris, True Day/Night
PMIR	Wide Angle Lens w/ Remote Focus/Zoom, P-Iris, True Day/Night, IR LEDs
-S	SDHC Card Slot, CorridorView™ w/ 90° Image Flip, Non-Integer Scaling
-01	Manual Panomorph Lens, True Day/Night

Model Numbers

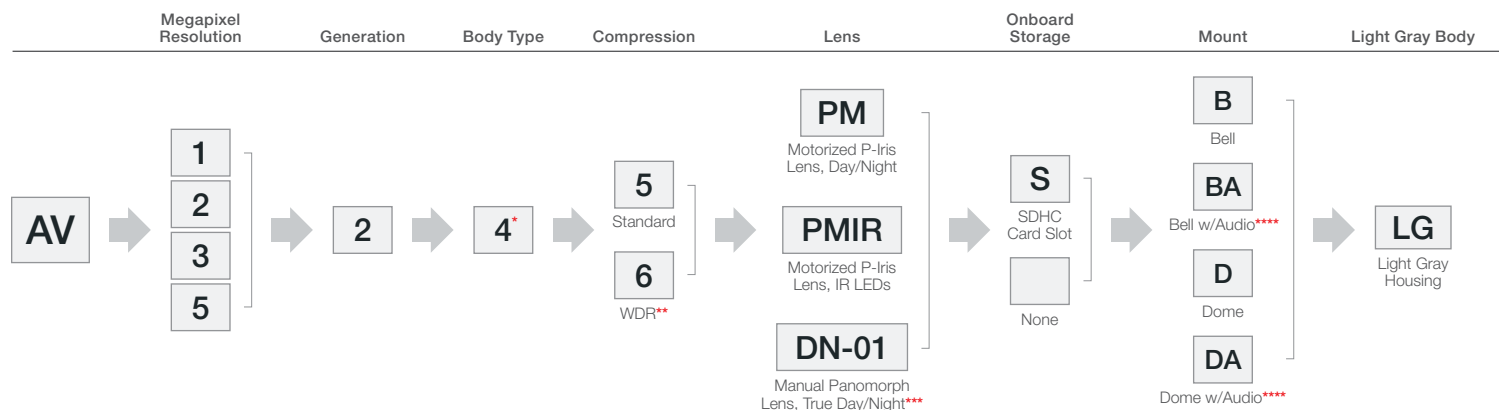
1.2MP	AV1245PMIR-SB-LG	STELLAR
1080p	AV2245PM-D-LG	
	AV2245PM-B-LG	
	AV2245PMIR-SB-LG	
	AV2245PMIR-SBA-LG	
	AV2246PM-D-LG	WDR
	AV2246PM-B-LG	WDR
	AV2246PMIR-SB-LG	WDR
3MP	AV3245PM-D-LG	
	AV3245PM-B-LG	
	AV3245PMIR-SB	
	AV3246PM-D-LG	WDR
	AV3246PM-B-LG	WDR
	AV3246PMIR-SB-LG	WDR
	AV3246PMIR-SBA-LG	WDR
5MP	AV5245PM-D-LG	
	AV5245PM-B-LG	
	AV5245PMIR-SB-LG	
	AV5245PMIR-SBA-LG	
	AV5245DN-01-D-LG	Panomorph
	AV5245DN-01-DA-LG	Panomorph

Configurations



¹ Can be configured as a surface mount or flush mount

Create Your Model (Example: AV5245PMIR-SBA-LG)



* "4" Represents MegaBall product line—which are then defined by "B" or "D" for body style

** WDR for AV2246 and AV3246 models only

*** Manual Panomorph Lens only available for 5MP models

**** Audio only available on some models